

Marco Bove

Full Professor

EDUCATION AND TRAINING

OCTOBER 1996 – DECEMBER 1996

Visiting Scientist at the Center for Integrated System – Stanford University

Research activity: design and fabrication of micromachined planar microelectrodes with a guided growth pattern on which to grow networks of neurons *in vitro* for multisite electrophysiology.

Stanford University – California (USA)

AUGUST 1995 – OCTOBER 1995

Visiting Student at NTT Basic Research Laboratories

Research activity: development of innovative algorithms to process electrophysiological signals in real time

NTT Basic Research Laboratories - Atsugi-shi (Japan)

JANUARY 1992 – OCTOBER 1995

Ph.D. in Bioengineering

Title of the thesis: Models and experimental measurements of the electrophysiological activity of neurons and neuronal networks cultured *in vitro*

Politecnico di Milano - Milano (Italy)

OCTOBER 1986 – JULY 1991

Laurea Thesis in Electronic Engineering (Biomedical Engineering course)

Title of the thesis: Acquisition and processing of electrophysiological signals from excitable cells

University of Genoa – Genoa (Italy)

PROFESSIONAL HISTORY

NOVEMBER 2024 – PRESENT

Full Professor of Human Physiology

University of Genoa, Department of Experimental Medicine – Genoa (Italy)

NOVEMBER 2018 – PRESENT

Researcher

IRCCS Policlinico San Martino – Genoa (Italy)

NOVEMBER 2014 – PRESENT

Coordinator of the FISM – DIMES Joint Lab

Italian Multiple Sclerosis Foundation and Department of Experimental Medicine - University of Genoa – Genoa (Italy)

NOVEMBER 2014 – OCTOBER 2024

Associate Professor of Human Physiology

University of Genoa, Department of Experimental Medicine – Genoa (Italy)

NOVEMBER 1999 – OCTOBER 2014

Assistant Professor of Human Physiology

University of Genoa, Department of Experimental Medicine – Genoa (Italy)

ACADEMIC APPOINTMENTS

NOVEMBER 2021 – present

Rector's Delegate for Sport Activities

University of Genoa – Genoa (Italy)

NOVEMBER 2015 – OCTOBER 2020

Coordinator of the Motor and Sport Sciences Study Programs (Laurea Triennale L-22; Laurea Magistrale LM-67; Laurea Magistrale LM-68)

University of Genoa, Department of Experimental Medicine – Genoa (Italy)

JANUARY 2013 – present

Member of the Academic Board of PhD Program in Neuroscience – Curriculum Motor and Sport Science

University of Genoa – Genoa (Italy)

JANUARY 2011 – DECEMBER 2012

Member of the Academic Board of PhD Program in Motor and Sport Sciences

University of Genoa – Genoa (Italy)

NOVEMBER 2010 – OCTOBER 2013

Member of the Board of the University Information and Telematic Services (CSITA)

University of Genoa – Genoa (Italy)

NOVEMBER 2004 – OCTOBER 2010

Member of the Academic Board of PhD Program in Bioengineering

University of Genoa – Genoa (Italy)

NOVEMBER 2003 – OCTOBER 2012

Member of the “Commissione Didattica” - School of Medical and Pharmaceutical Sciences

University of Genoa – Genoa (Italy)

NOVEMBER 2003 – OCTOBER 2008

Member of the “Commissione Paritetica docenti-studenti” - School of Medical and Pharmaceutical Sciences

University of Genoa – Genoa (Italy)

EXPERIENCE

MAIN SEMINARS

16-17/07/2025 fNIRS Italy Conference
Member of the organizing and scientific committee
Held at the University of Genoa, Italy

14/05/2025 Temporal accuracy in movement reproduction: the role of proprioceptive augmented virtual reality
Oral presentation
International RehabWeek Conference – Chicago (USA)

04/09/2024 The future is in our hands: how manual dexterity and perceptual representation of the hand can influence manual control
Organizer and chair of the symposium
XXXII National Congress of the Italian Society of Psychophysiology and Cognitive Neuroscience

27/06/2023 The role of proprioception in modulating cortical plasticity: new insights in the field of sensorimotor integration
Invited speaker at the 9th ECTRIMS International Summer School titled “From biological basis to ecological implications of rehabilitation in MS”
Gdansk (Poland)

31/10/2022 The role of proprioception in modulating cortical plasticity: new insights in the field of sensorimotor integration
Invited speaker at the PhD course titled “Human Behaviour, Theories and Methods in Motor and Cognitive Neuroscience”
Department of Nutrition, Exercise and Sports, University of Copenhagen – Copenhagen (Denmark)

10/04/2019 Brains in Action: Cortical Hemodynamic Activity during Movement
Invited speaker
International Congress in Multiple Sclerosis Rehabilitation (RIMS) 2019 – “Crossing the Interface to Explore New Possibilities” - Lubijana (Slovenia)

23/05/2018 Neurophysiological mechanisms of brain plasticity and their implications for recovery of function in multiple sclerosis
Invited speaker
Progressive MS Alliance 3rd Scientific Congress – “Progressive MS – Making a Difference Through Rehabilitation and Symptom Management” - Toronto (Canada)

16-18/09/2015 Società Italiana di Fisiologia (SIF) National Congress
Member of the organizing and scientific committee
Held at the University of Genoa, Italy

10/04/2015 Brain reorganization following upper limb motor rehabilitation in patients with multiple sclerosis
Invited speaker
International Congress in Multiple Sclerosis Rehabilitation (RIMS) 2015 – “Translational Research & Patient-Centered Outcome Measures” - Milano (Italy)

10/10/2014 The influence of spontaneous movement tempo on motor resonance during action observation

Invited speaker

International Congress on Motor Imagery and Action Observation, Université de Bourgogne - Dijon (France)

11-15/06/2012 6th European Summer School of Neuroengineering - Massimo Grattarola

Member of the organizing and scientific committee

Held at the University of Genoa, Italy

29/04/2010 Motor behavior and corticospinal excitability: upper limb use and disuse

Invited speaker

1st International Workshop on Synaptic Plasticity: from bench to bed side – Giardini Naxos (Italy)

25/04/2009 Innovations in Multiple Sclerosis: Upper limb

Invited speaker

International Congress in Multiple Sclerosis Rehabilitation (RIMS) 2009 – Genoa (Italy)

SCIENTIFIC RESPONSIBILITY FOR RESEARCH PROJECTS ACCEPTED FOR FUNDING ON THE BASIS OF COMPETITIVE CALLS INVOLVING PEER REVIEW

2023 - 2027 Investigator Initiated Clinical Trial “Neurorehabilitation of Cognitive Deficits in Multiple Sclerosis Using an Adaptive Cognitive Exergame”

Swiss National Science Foundation -Coordinator of the UNIGE unit

University of Genoa – Genoa (Italy)

2021 - 2021 Strumenti di Monitoraggio e politiche di Intervento per il potenziamento e la salvaguardia della Ricerca Neuroscientifica Avanzata post COVID -19 (MIRNA)

FISR2020IP_03717 - Coordinator of the UNIGE unit

University of Genoa – Genoa (Italy)

2017 - 2024 Monitoring and integrating the rehabilitative process of persons with multiple sclerosis by means of a prosthetic aid with biofeedback

Competitive call of the Italian Multiple Sclerosis Foundation - FISM 2017. Principal Investigator

University of Genoa – Genoa (Italy)

2015 - 2017 Aerobic training as substrate for neural plastic changes in Multiple Sclerosis: a putative disease-modifying treatment?

Fondation ARSEP pour la recherche sur la sclérose en plaques (ARSEP) – Project Coordinator

University of Genoa – Genoa (Italy)

2012 - 2014 The impact of motor and cognitive rehabilitation on the dynamic properties of brain structure: towards the personalization of therapeutic interventions in patients with Multiple Sclerosis

Competitive call of the Italian Multiple Sclerosis Foundation - FISM 2017. Principal Investigator

University of Genoa – Genoa (Italy)

2007 - 2009 An integrated approach to motor and cognitive rehabilitation in Multiple Sclerosis: from neuroplasticity to clinical evidence
Italian Ministry of Health - Coordinator of the UNIGE unit
University of Genoa – Genoa (Italy)

2005 - 2006 Bimanual motor coordination in patients with multiple sclerosis: a pilot study
Competitive call of the Italian Multiple Sclerosis Foundation - FISM 2017. Principal Investigator
University of Genoa – Genoa (Italy)

2002 - 2005 A bioartificial brain with an artificial body: training a cultured neural tissue to support the purposive behavior of an artificial body
European Project FP5-IST-2001-33564 - Responsible of the DIMES research unit
Department of Experimental Medicine (DIMES), University of Genoa – Genoa (Italy)

TEACHING OR RESEARCH POSITIONS (FELLOWSHIPS) AT FOREIGN UNIVERSITIES AND RESEARCH INSTITUTES

01/10/2009 – 30/09/2011 Visiting Professor
Professor of Neurophysiology at UFR-STAPS and PhD supervisor at the University of Bourgogne
Institut des Sciences et Techniques des Activités Physiques et Sportives (UFR-STAPS),
Université de Bourgogne - Dijon (France)

PRIZES AND ACCOLADES FOR SCIENTIFIC ACTIVITY, INCLUDING MEMBERSHIP OF ACADEMIES

2023 – present Member of the Board Director of the International Research Center for Cognitive Applied Neuroscience - IRCCAN.

2020 – present Member of the Scientific Council of the International Research Center for Cognitive Applied Neuroscience - IRCCAN.

2016 – 2017 Member of the Board Director of the “Italian Society of Psychophysiology and Cognitive Neuroscience - SIPF”

2005 Author of a national patent “design of an engineered, MRI-compatible, glove for the quantitative kinematic assessment of oppositional movements of the fingers” (cod. TO2005A00368, 31-05-2005)

OTHER EXPERIENCES

2017 – 2023 Member of the Social and Behavioural Science Research Scientific Committee of the Italian Multiple Sclerosis Foundation